

IN THE CLAIMS

Please cancel claims 35-36, 40, 43-44, 48-49, 51-52, 56-57, 61-62 and 66 without prejudice or disclaimer.

Please amend claims 37-39, 41-42, 45-47, 50, 53-55, 58-60, 63-65 and 67-68 as indicated below.

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-36 (cancelled)

Claim 37 (currently amended) ~~The network switch of claim 35~~ A network switch comprising:

a CPU;

a memory system having circuitry operable to attach to the CPU;

a switch fabric system having circuitry operable to attach to the CPU;

a port controller having circuitry operable to attach to the switch fabric system;

a software application operable to execute on the CPU;

a Forwarding Database Distribution Library (FDDL) system operable to execute on the CPU;

a switch device driver operable to execute on the CPU;

wherein the software application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric;

wherein the FDDL system defines an FDDL API for communication with the software application, and the FDDL system defines a Switch Services API for communication with the switch device driver.

Claim 38 (currently amended) ~~The network switch of claim 36~~ A network switch comprising:

a CPU;
a memory system having circuitry operable to attach to the CPU;
a switch fabric system having circuitry operable to attach to the CPU;
a port controller having circuitry operable to attach to the switch fabric system;
a software application operable to execute on the CPU;
a Forwarding Database Distribution Library (FDDL) system operable to execute on the CPU;
a switch device driver operable to execute on the CPU; and
a second software application operable to execute on the CPU, wherein the second software application communicates with the FDDL system;
wherein the software application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric;
wherein the FDDL system defines an FDDL API for communication with the software application and the second software application, and the FDDL system defines a Switch Services API for communication with the switch device driver.

Claim 39 (currently amended) ~~The network switch of claim 36~~ A network switch comprising:

a CPU;
a memory system having circuitry operable to attach to the CPU;
a switch fabric system having circuitry operable to attach to the CPU;
a port controller having circuitry operable to attach to the switch fabric system;
a software application operable to execute on the CPU;
a Forwarding Database Distribution Library (FDDL) system operable to execute on the CPU;
a switch device driver operable to execute on the CPU; and
a second software application operable to execute on the CPU, wherein the second software application communicates with the FDDL system;

wherein the software application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric;

wherein the FDDL system comprises:

a base FDDL system;

a software application tower FDDL system; and

a second software application tower FDDL system

wherein the base FDDL system communicates with the switch device driver, the software application communicates with the software application tower FDDL system, the second software application communicates with the second software application tower FDDL system, and the base FDDL system communicates with the software application tower FDDL system and the second software application tower FDDL system.

Claim 40 (cancelled)

Claim 41 (currently amended) ~~The network switch of claim 40 further comprising A~~
network switch comprising:

a CPU;

a memory system having circuitry operable to attach to the CPU;

a switch fabric system having circuitry operable to attach to the CPU;

a port controller having circuitry operable to attach to the switch fabric system;

a software application operable to execute on the CPU;

a Forwarding Database Distribution Library (FDDL) system operable to execute on the CPU;

a switch device driver operable to execute on the CPU;

an independent software application operable to execute on the CPU;

an independent software application shim operable to execute on the CPU;

wherein the software application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric;

wherein the independent software application communicates with the independent software application shim and the independent software application shim communicates with the switch device driver; and

a second software application operable to execute on the CPU, wherein the FDDL system defines an FDDL API for communication with the software application and the second software application, and the FDDL system defines a Switch Services API for communication with the switch device driver.

Claim 42 (currently amended) ~~The network switch of claim 40~~ A network switch comprising:

a CPU;

a memory system having circuitry operable to attach to the CPU;

a switch fabric system having circuitry operable to attach to the CPU;

a port controller having circuitry operable to attach to the switch fabric system;

a software application operable to execute on the CPU;

a Forwarding Database Distribution Library (FDDL) system operable to execute on the CPU;

a switch device driver operable to execute on the CPU;

an independent software application operable to execute on the CPU;

an independent software application shim operable to execute on the CPU;

wherein the software application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric;

wherein the independent software application communicates with the independent software application shim and the independent software application shim communicates with the switch device driver; and

wherein the FDDL system comprises:

a base FDDL system;

a software application tower FDDL system; and

a second software application tower FDDL system

wherein the base FDDL system communicates with the switch device driver, the software application communicates with the software application tower FDDL system, the second software application communicates with the second software application tower FDDL system, and the base FDDL system communicates with the software application tower FDDL system and the second software application tower FDDL system.

Claims 43-44 (cancelled)

Claim 45 (currently amended) ~~The network switch of claim 43~~ A network switch comprising:

a CPU;

a memory system having circuitry operable to attach to the CPU;

a switch fabric system having circuitry operable to attach to the CPU;

a port controller having circuitry operable to attach to the switch fabric system;

a protocol means for providing a service to a network system;

a Forwarding Database Distribution Library (FDDL) means for communicating with the protocol means; and

a switch device driver means for communicating with the FDDL means and the port controller;

wherein the FDDL means defines an FDDL API for communication with the software application, and the FDDL means defines a Switch Services API for communication with the switch device driver.

Claim 46 (currently amended) ~~The network switch of claim 44~~ A network switch comprising:

a CPU;

a memory system having circuitry operable to attach to the CPU;

a switch fabric system having circuitry operable to attach to the CPU;

a port controller having circuitry operable to attach to the switch fabric system;

a protocol means for providing a service to a network system;

a Forwarding Database Distribution Library (FDDL) means for communicating with the protocol means;

a switch device driver means for communicating with the FDDL means and the port controller; and

a second protocol means for providing a second service to the network system, wherein the FDDL means communicates with the second protocol means;

wherein the FDDL means defines an FDDL API for communication with the protocol means and the second protocol means, and the FDDL system defines a Switch Services API for communication with the switch device driver means.

Claim 47 (currently amended) ~~The network switch of claim 44~~ A network switch comprising:

a CPU;

a memory system having circuitry operable to attach to the CPU;

a switch fabric system having circuitry operable to attach to the CPU;

a port controller having circuitry operable to attach to the switch fabric system;

a protocol means for providing a service to a network system;

a Forwarding Database Distribution Library (FDDL) means for communicating with the protocol means;

a switch device driver means for communicating with the FDDL means and the port controller; and

a second protocol means for providing a second service to the network system, wherein the FDDL means communicates with the second protocol means;

wherein the FDDL means comprises:

a base FDDL means for communicating with the switch device driver means;

a protocol tower FDDL means for communicating with the protocol means and the base FDDL means; and

a second protocol tower FDDL means for communicating with a second protocol means and the base FDDL means.

Claims 48-49 (cancelled)

Claim 50 (currently amended) ~~The network switch of claim 48~~ A network switch comprising:

a CPU;

a memory system having circuitry operable to attach to the CPU;

a switch fabric system having circuitry operable to attach to the CPU;

a port controller having circuitry operable to attach to the switch fabric system;

a protocol means for providing a service to a network system;

a Forwarding Database Distribution Library (FDDL) means for communicating with the protocol means;

a switch device driver means for communicating with the FDDL means and the port controller;

an independent protocol means for providing an independent service to the network system; and

an independent protocol shim for communicating with the independent protocol means and the switch device driver means;

wherein the FDDL means comprises:

a base FDDL means for communicating with the switch device driver means;

a protocol tower FDDL means for communicating with the protocol means and the base FDDL means; and

a second protocol tower FDDL means for communicating with the second protocol means and the base FDDL means.

Claims 51-52 (cancelled)

Claim 53 (currently amended) ~~The method of claim 52~~ A method of providing communications over a network system utilizing a first protocol and a second protocol, the method comprising the steps of:

receiving information at a port controller in a first protocol from a first node machine;

communicating the information from the port controller to a switch fabric;

communicating the information from the switch fabric to a switch device driver within an operating system;

communicating the information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the information from the FDDL to a first protocol client;

receiving additional information at a port controller in a second protocol from a first node machine;

communicating the additional information from the port controller to a switch fabric;

communicating the additional information from the switch fabric to a switch device driver within an operating system;

communicating the additional information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the additional information from the FDDL to a second protocol client;

wherein all communicating between the switch device driver to the FDDL is done through a switch services API; and

all communicating from the FDDL to the first protocol client and the second protocol client is done through an FDDL API.

Claim 54 (currently amended) ~~The method of claim 52 further comprising the steps of:~~ A method of providing communications over a network system utilizing a first protocol and a second protocol, the method comprising the steps of:

receiving information at a port controller in a first protocol from a first node machine;

communicating the information from the port controller to a switch fabric;

communicating the information from the switch fabric to a switch device driver within an operating system;

communicating the information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the information from the FDDL to a first protocol client;

receiving additional information at a port controller in a second protocol from a first node machine;

communicating the additional information from the port controller to a switch fabric;

communicating the additional information from the switch fabric to a switch device driver within an operating system;

communicating the additional information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the additional information from the FDDL to a second protocol client;

defining a switch services API for communication between the switch device driver; and

defining an FDDL API for communication between the first protocol client and the FDDL.

Claim 55 (currently amended) ~~The method of claim 52 further comprising the steps:~~
A method of providing communications over a network system utilizing a first protocol and a second protocol, the method comprising the steps of:

receiving information at a port controller in a first protocol from a first node machine;

communicating the information from the port controller to a switch fabric;

communicating the information from the switch fabric to a switch device driver within an operating system;

communicating the information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the information from the FDDL to a first protocol client;

receiving additional information at a port controller in a second protocol from a first node machine;

communicating the additional information from the port controller to a switch fabric;

communicating the additional information from the switch fabric to a switch device driver within an operating system;

communicating the additional information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the additional information from the FDDL to a second protocol client;

receiving the information from the switch device driver at an FDDL base within the FDDL;

passing the information from the FDDL base to a first protocol FDDL tower within the FDDL; and

sending the information from the first protocol FDDL tower to the first protocol client.

Claims 56-57 (cancelled)

Claim 58 (currently amended) ~~The computer-readable medium of claim 57~~ A computer-readable medium having stored thereon computer executable instructions for performing the steps comprising:

receiving information at a port controller in a first protocol from a first node machine;

communicating the information from the port controller to a switch fabric;

communicating the information from the switch fabric to a switch device driver within an operating system;

communicating the information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the information from the FDDL to a first protocol client;

receiving additional information at a port controller in a second protocol from a first node machine;

communicating the additional information from the port controller to a switch fabric;

communicating the additional information from the switch fabric to a switch device driver within an operating system;

communicating the additional information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the additional information from the FDDL to a second protocol client;

wherein all communicating between the switch device driver to the FDDL is done through a switch services API; and

all communicating from the FDDL to the first protocol client and the second protocol client is done through an FDDL API.

Claim 59 (currently amended) ~~The computer-readable medium of claim 57 having further stored thereon computer-executable instructions for performing the steps comprising:~~ A computer-readable medium having stored thereon computer-executable instructions for performing the steps comprising:

receiving information at a port controller in a first protocol from a first node machine;

communicating the information from the port controller to a switch fabric;

communicating the information from the switch fabric to a switch device driver within an operating system;

communicating the information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the information from the FDDL to a first protocol client;

receiving additional information at a port controller in a second protocol from a first node machine;

communicating the additional information from the port controller to a switch fabric;

communicating the additional information from the switch fabric to a switch device driver within an operating system;

communicating the additional information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the additional information from the FDDL to a second protocol client;

defining a switch services API for communication between the switch device driver; and

defining an FDDL API for communication between the first protocol client and the FDDL.

Claim 60 (currently amended) ~~The computer-readable medium of claim 57 having further stored thereon computer-executable instructions for performing the steps comprising:~~ A computer-readable medium having stored thereon computer executable instructions for performing the steps comprising:

receiving information at a port controller in a first protocol from a first node machine;

communicating the information from the port controller to a switch fabric;

communicating the information from the switch fabric to a switch device driver within an operating system;

communicating the information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the information from the FDDL to a first protocol client;

receiving additional information at a port controller in a second protocol from a first node machine;

communicating the additional information from the port controller to a switch fabric;

communicating the additional information from the switch fabric to a switch device driver within an operating system;

communicating the additional information from the switch device driver to a Forwarding Database Distribution Library (FDDL);

communicating the additional information from the FDDL to a second protocol client;

receiving the information from the switch device driver at an FDDL base within the FDDL;

passing the information from the FDDL base to a first protocol FDDL tower within the FDDL; and

sending the information from the first protocol FDDL tower to the first protocol client.

Claims 61-62 (cancelled)

Claim 63 (currently amended) ~~The network system of claim 61~~ A network system comprising:

a network switch comprising a CPU, a memory system having circuitry operable to attach to the CPU, a switch fabric system having circuitry operable to attach to the CPU a port controller having circuitry operable to attach to the switch fabric system, a software application operable to execute on the CPU, a Forwarding Database Distribution Library (FDDL) system operable to execute on the CPU, and a switch device driver operable to execute on the CPU, wherein the software application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric;

a backbone; and

a workstation,

wherein the workstation is logically connected to the backbone, and

wherein the backbone is logically connected to the port controller of the network switch;

wherein the FDDL system defines an FDDL API for communication with the software application, and the FDDL system defines a Switch Services API for communication with the switch device driver.

Claim 64 (previously presented) ~~The network system of claim 62~~ A network system comprising:

a network switch comprising a CPU, a memory system having circuitry operable to attach to the CPU, a switch fabric system having circuitry operable to attach to the CPU a port controller having circuitry operable to attach to the switch fabric system, a software application operable to execute on the CPU, a Forwarding Database Distribution Library (FDDL) system operable to execute on the CPU, and a switch device driver operable to execute on the CPU, wherein the software application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric;

a backbone;

a workstation; and

a second software application operable to execute on the CPU, wherein the second software application communicates with the FDDL system;

wherein the workstation is logically connected to the backbone,

wherein the backbone is logically connected to the port controller of the network switch; and

wherein the FDDL system defines an FDDL API for communication with the software application and the second software application, and the FDDL system defines a Switch Services API for communication with the switch device driver.

Claim 65 (currently amended) ~~The network system of claim 62~~ A network system comprising:

a network switch comprising a CPU, a memory system having circuitry operable to attach to the CPU, a switch fabric system having circuitry operable to attach to the CPU a port controller having circuitry operable to attach to the switch fabric system, a software application operable to execute on the CPU, a Forwarding Database Distribution Library (FDDL) system operable to execute on the CPU, and a switch device driver operable to execute on the CPU, wherein the software application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric;

a backbone;

a workstation; and
a second software application operable to execute on the CPU, wherein the
second software application communicates with the FDDL system;
wherein the workstation is logically connected to the backbone,
wherein the backbone is logically connected to the port controller of the
network switch; and

wherein the FDDL system comprises:

- a base FDDL system;
- a software application tower FDDL system; and
- a second software application tower FDDL system

wherein the base FDDL system communicates with the switch device driver, the software application communicates with the software application tower FDDL system, the second software application communicates with the second software application tower FDDL system, and the base FDDL system communicates with the software application tower FDDL system and the second software application tower FDDL system.

Claim 66 (cancelled)

Claim 67 (currently amended) ~~The network system of claim 66~~ A network system comprising:

a network switch comprising a CPU, a memory system having circuitry
operable to attach to the CPU, a switch fabric system having circuitry operable to
attach to the CPU a port controller having circuitry operable to attach to the switch
fabric system, a software application operable to execute on the CPU, a Forwarding
Database Distribution Library (FDDL) system operable to execute on the CPU, and a
switch device driver operable to execute on the CPU, wherein the software
application is operable to communicate with the FDDL system, the FDDL system is
operable to communicate with the switch device driver, and the switch device driver
is operable to communicate with the switch fabric;

- a backbone;
- a workstation.

an independent software application operable to execute on the CPU;
an independent software application shim operable to execute on the CPU;
wherein the workstation is logically connected to the backbone,
wherein the backbone is logically connected to the port controller of the
network switch; and

wherein the independent software application communicates with the
independent software application shim and the independent software application shim
communicates with the switch device driver; and

a second software application operable to execute on the CPU, wherein the FDDL system defines an FDDL API for communication with the software application and the second software application, and the FDDL system defines a Switch Services API for communication with the switch device driver.

Claim 68 (currently amended) ~~The network system of claim 66~~ A network system comprising:

a network switch comprising a CPU, a memory system having circuitry operable to attach to the CPU, a switch fabric system having circuitry operable to attach to the CPU a port controller having circuitry operable to attach to the switch fabric system, a software application operable to execute on the CPU, a Forwarding Database Distribution Library (FDDL) system operable to execute on the CPU, and a switch device driver operable to execute on the CPU, wherein the software application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric;

a backbone;

a workstation,

an independent software application operable to execute on the CPU;

an independent software application shim operable to execute on the CPU;

wherein the workstation is logically connected to the backbone,

wherein the backbone is logically connected to the port controller of the
network switch;

wherein the independent software application communicates with the independent software application shim and the independent software application shim communicates with the switch device driver; and

wherein the FDDL system comprises:

a base FDDL system;

a software application tower FDDL system; and

a second software application tower FDDL system

wherein the base FDDL system communicates with the switch device driver, the software application communicates with the software application tower FDDL system, the second software application communicates with the second software application tower FDDL system, and the base FDDL system communicates with the software application tower FDDL system and the second software application tower FDDL system.